

IN THE CLAIMS:

1. (Previously Presented) A manipulator-guided gripping device for workpieces and body parts in a body shell, the gripping device comprising:

a frame including a docking site for connection with a manipulator, a plurality of device parts connected to said docking site and a safety means for detecting changes in geometry in the gripping device, the safety means including at least one deflectable safety device at locations between the device parts.

2. (Previously Presented) A gripping device in accordance with claim 1, wherein the deflectable safety device is arranged at a junction point between the device parts.

3. (Previously Presented) A gripping device in accordance with claim 1, wherein the deflectable safety device has at least two said safety device parts that are mounted such that they can deflect along one or more axes in case of overload.

4 –23 (Canceled)

24. (Previously Presented) A gripping device in accordance with claim 3, wherein the safety device parts are securing parts connected to one another by clamping connection and frictional connection or a locking element arranged between the securing parts.

25. (Previously Presented) A gripping device in accordance with claim 3, wherein the safety device parts are securing parts with each of the securing parts being connected to one of said device parts, wherein a locking element is arranged between the securing parts and the locking element is held with an elastic clamping element.

26. (Previously Presented) A gripping device in accordance with claim 25, wherein the locking element and the clamping element are adjusted to a force for holding the securing parts during normal operation.

27. (Currently Amended) A gripping device in accordance with claim 25, wherein the securing parts comprise a sphere or sphere portion and a surrounding socket or surrounding socket portion.

28. (Currently Amended) A gripping device in accordance with claim 27, wherein the sphere or sphere portion comprises a ring-shaped collar with a crowned outer side and the socket or socket portion comprises a surrounding calotte with an inner side rounded complementarily thereto.

29. (Previously Presented) A gripping device in accordance with claim 3, wherein the said safety device parts are securing parts having an adjusting means for reproducible mutual positioning.

30. (Previously Presented) A gripping device in accordance with claim 1, wherein said safety device parts are securing parts having one or more detectors, which detect and signal the deflections of the securing parts.

31. (Previously Presented) A gripping device in accordance with claim 30, wherein the detector is arranged centrally or eccentrically in relation to a central axis of the securing parts and is designed as a component of the adjusting means.

32. (Previously Presented) A gripping device in accordance with claim 30, wherein the detector has a pressure piece arranged in an elastically movable manner in an end-side tube section, the pressure piece having a projecting head part meshing with a mount at a projection of a cooperating said securing part in a positive-locking manner, wherein a microswitch is arranged at the contact site.

33. (Previously Presented) A gripping device in accordance with claim 30, further comprising a process control wherein the detectors are connected to the process control.

34. (Previously Presented) A gripping device in accordance with claim 1, wherein device parts of the frame comprise a plurality of frame tubes and one or more gripping or clamping elements and wherein the frame tubes are divided and a deflection securing means is arranged between the tube sections.

35. (Previously Presented) A manipulator-guided gripping device for gripping a workpiece, the gripping device comprising a frame comprising:

a docking site for connection with a multiaxial robot manipulator;

a plurality of device parts connected to said docking site said device parts comprising a plurality of frame tubes and one or more gripping or clamping elements with one or more of said device parts being connected at junction locations

a safety means for detecting changes in geometry in the gripping device, the safety means including deflectable safety devices at said junction locations.

36. (Previously Presented) A gripping device in accordance with claim 35, wherein the deflectable safety device has at least two safety device parts that are mounted such that they can deflect along one or more axes in case of overload wherein the safety device parts are securing parts connected to one another by a clamping connection, a frictional connection or a locking element arranged between the securing parts and with each of the securing parts being connected to one of said device parts.

37. (Previously Presented) A gripping device in accordance with claim 25, wherein a locking element is arranged between the securing parts and the locking element is held with an elastic clamping element wherein the locking element and the clamping element are adjusted to a force for holding the securing parts during normal operation and for allowing relative movement of the securing parts in case of overload.

38. (Previously Presented) A gripping device in accordance with claim 35, wherein said safety device parts are securing parts having one or more detectors, which detect and signal the deflections of the securing parts, wherein the detector is arranged centrically or eccentrically in relation to a central axis of the securing parts and is designed as a component of the adjusting means.

39. (Previously Presented) A gripping device in accordance with claim 38, further comprising a process control wherein the detectors are connected to the process control, wherein the detector has a pressure piece arranged in an elastically movable manner in an end-side tube section, the pressure piece having a projecting head part meshing with a mount at a projection of a cooperating said securing part in a positive-locking manner, wherein a microswitch is arranged at the contact site.

40. (Previously Presented) A gripping device in accordance with claim 1, wherein the frame tubes are divided as tube sections and a deflection securing means is arranged between the tube sections.